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Rapid mixing injection valve for internal combustion engine - has electrostrictive or magnetostrictive piezo-actuator with valve needle, hydraulic chamber and separating elements

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Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19838862	A1	20000309	DE 1038862	A	19980826	200019 B
FR 2782796	A1	20000303	FR 9910730	A	19990824	200019

Priority Applications (No Type Date): DE 1038862 A 19980826

Patent Details:

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DE 19838862 A1 13 G01F-013/00

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Abstract (Basic): DE 19838862 A

The valve comprises a housing (2) provided with a piezo-actuator (1) and a hydraulic chamber (8) bounded by primary (4,41) and secondary (6,61) separating elements. There is a fluid chamber (7) with a valve needle (5) and reservoir (10), filled with hydraulic fluid (14), and a flexible outer wall connected to the needle.

The throttled-down connecting tube (9,91) connects the reservoir to the hydraulic chamber.

ADVANTAGE - Gives highly precise mixture. Improves use of fuel and reduces emissions.

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Title Terms: RAPID; MIX; INJECTION; VALVE; INTERNAL; COMBUST; ENGINE; ELECTROSTRICTIVE; MAGNETOSTRICTIVE; PIEZO; ACTUATE; VALVE; NEEDLE; HYDRAULIC; CHAMBER; SEPARATE; ELEMENT

Derwent Class: P42; Q53; Q57; S02; V06; X22

International Patent Class (Main): G01F-013/00

International Patent Class (Additional): B05B-009/047; F02M-047/06; F02M-051/06; F15B-001/00; F15B-015/00; F16K-031/00

File Segment: EPI; EngPI